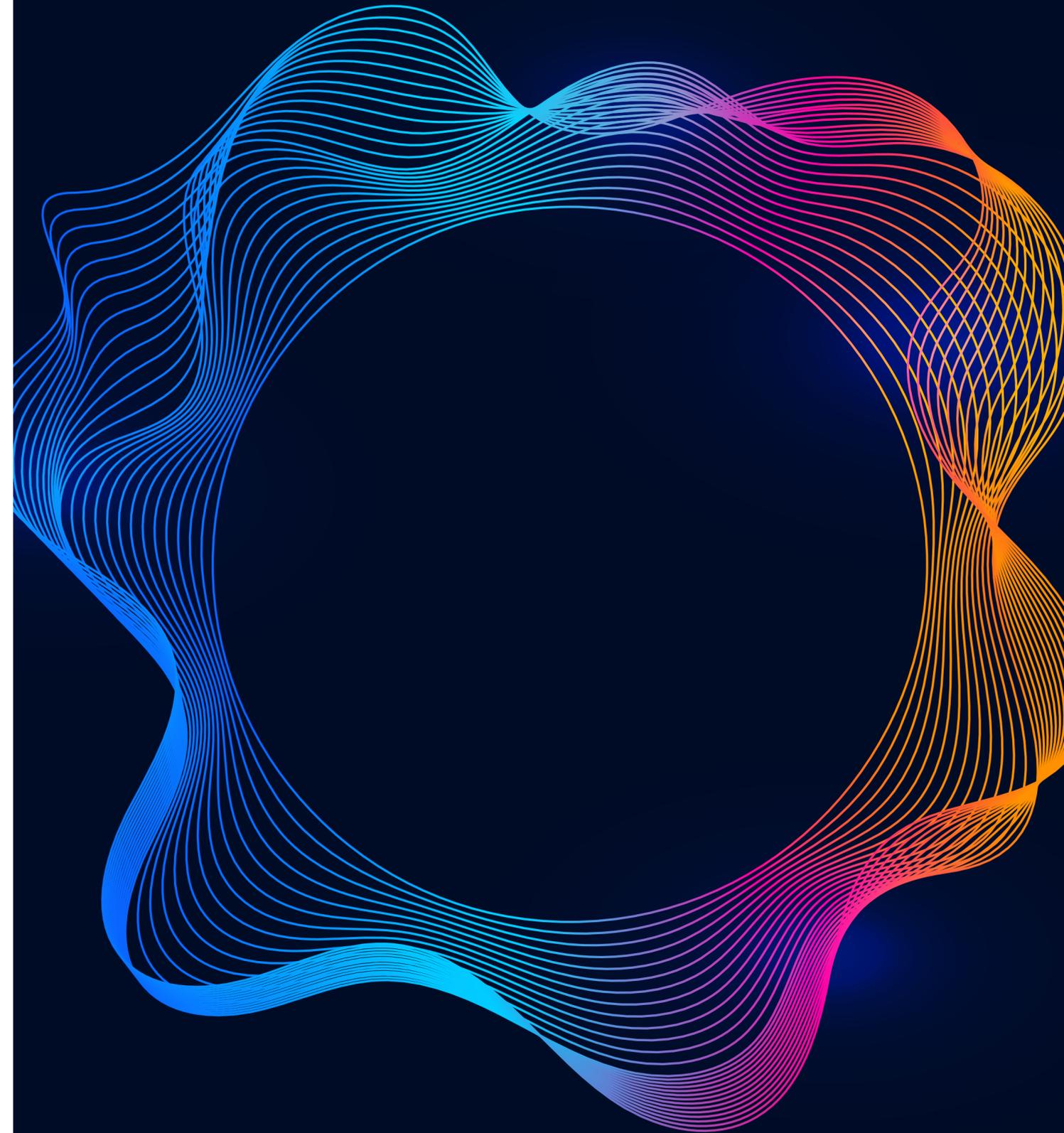# The Race to Agentic AI: Why Infrastructure Will Make or Break Workforce Transformation

Contents

Agentic AI isn't just another technology trend—it's the catalyst for the most significant workforce transformation in a generation

And that transformation has exposed an existential risk most organizations aren't prepared for.

To understand the scale of this transformation, and the barriers standing in the way of it, Cisco partnered with Omdia to survey 650 enterprise executives. The findings are striking: 87% said agentic AI has fundamentally reshaped their strategic priorities. Within two years, most employees will regularly collaborate with agents to do their jobs. And executives agreed that agentic AI has the potential to create entirely new roles, not just eliminate them.

But here's the reality no one is talking about: The success of this new AI-augmented workforce is now constrained by the infrastructure beneath it.

That's because agentic AI needs real-time context, identity, and security—as well as governed, high-quality data—to work reliably. And, today, many enterprises don't have secure, resilient infrastructure to support agentic AI.

Workforce transformation is now an infrastructure challenge. And if AI agents are reasoning and acting across applications, clouds, and data centers, then the underlying fabric—the data, the network, and the security controls that surround them— determines whether agentic AI scales or fails.

Those already using AI agents in production, referred to in this report as "production pioneers," are responding with urgency, especially in comparison to those that have yet to deploy agents (referred to as "incubators" in this report). They're centralizing AI governance, modernizing their digital infrastructure, and investing heavily—dedicating, on average, approximately 37% of technology budgets to agentic AI. Half believe it's essential for competitive survival today—well before most organizations will have re-architected for it.

The organizations moving fastest on agentic AI—the production pioneers—aren't waiting for perfect clarity. But they acknowledge one thing: Agentic AI at scale isn't possible on legacy infrastructure. The foundation must come first, and it must come soon. This is the infrastructure imperative—the recognition that agentic AI demands a fundamentally different technical foundation, and that building it is now urgent. The executives surveyed for this report expect these investments to reshape their workforces within the next two years—not incrementally, but dramatically. This report examines where executives are placing their bets. It explores how they're preparing their organizations and people. And it reveals why the workforce of tomorrow will likely look different from today.

Defining key terms

Respondents:
We surveyed 650 executives across six countries. All were stakeholders in their organizations' agentic AI strategies and investments. All held director-level titles or above, with 35% residing in the C-suite.

Agentic AI:
AI systems capable of autonomous action and decision-making without direct human intervention. These systems, manifested as AI agents, perceive and interact with their environments while independently pursuing goals.

Production pioneers:
Organizations represented in the survey using agentic AI technologies in production today. These leading organizations made up 19% of the final sample.

Incubators:
Organizations currently piloting agentic AI in their environment or planning to do so within the next 12 months. These organizations made up 64% and 17%, respectively, of the final sample.

Agentic AI: Redefining work, reinventing roles

65% of executives said they expect agentic AI to create entirely new roles over the next three to five years.

What sets agentic AI apart from traditional generative AI is autonomy. Agents don't just respond—they act. After receiving initial instructions, they can independently execute processes, leverage tools, and query data to achieve objectives. More advanced agents refine strategies over time based on outcomes, adapting to new information or human feedback. This shift from reactive assistance to proactive action is fundamentally changing how organizations think about productivity and efficiency.

As agentic AI capabilities mature, the popular narrative around AI and work has focused on job elimination, but the reality may be more nuanced. Although 40% of executives predicted that certain jobs will be eliminated, the research also indicates an expectation of workforce transformation. In fact, 65% of executives said they expect agentic AI to create entirely new roles over the next three to five years. Additionally, 64% expect core responsibilities to be significantly redefined across their organizations.

Executives surveyed also expect an impact across both technical and business functions alike, creating demand for new skills in AI understanding, orchestration, and upleveling collaboration techniques such as prompt engineering.

But this transformation hinges on something foundational: having the critical infrastructure to enable it. New roles focused on AI orchestration and governance require systems that

support real-time agent interactions, enforce security across autonomous workflows, and provide visibility into AI decision-making at scale. Without that foundation, these roles can't function—no matter how prepared the workforce may be.

The real challenge for executives now is helping organizations adapt to create an environment where agents can scale.

92% said the ability to collaborate with machines is an essential skill in the agentic AI era.

92% also agreed their organization must lean in on training to empower staff to collaborate with agents.

90% are reimagining organizational design and existing processes to make way for agents.

How agentic AI is reshaping strategic priorities

Agentic AI has become a central strategic force, demanding the attention of executives.

Eighty-seven percent of executives surveyed said that agentic AI has directly impacted their strategic priorities. Among production pioneers, 46% described the shift as "major," compared to 33% of incubators.

Who's leading the charge within organizations?

Agentic AI isn't a single-leader initiative. When asked which executives hold significant responsibility for agentic AI strategies, respondents identified multiple stakeholders:

IT leadership (75%) brings technical expertise and understanding of infrastructure requirements.

CEOs (67%) provide strategic vision and an organizational mandate.

Data science specialists (58%) contribute AI-specific knowledge and implementation guidance.

This cross-functional leadership model reflects the reality that successful agentic AI deployment requires simultaneous progress across technology, strategy, and specialized AI capabilities; no single leader can drive it alone.

# Unlocking new opportunities for business impact with agentic AI

The degree of workforce transformation projected by executives reflects the business value to be unlocked. Production pioneers are already seeing impressive gains: 60% cited improved operational efficiency, 58% pointed to better decision-making, and 56% reported both revenue growth and cost improvements.

When asked about expected benefits over the next 24 months, production pioneers are significantly more bullish about gains than incubators across every metric. This suggests that hands-on experience with agentic AI strengthens conviction about transformative potential.

What's more, pioneers agree that infrastructure readiness sets successful deployments apart from those that struggle. Organizations seeing real benefits invested early in network modernization, security, and data optimization.

The research shows that agentic AI's primary impact isn't just efficiency—it's enabling fundamentally different ways of working. By combining human creativity with AI's power, organizations can achieve outcomes that neither could produce independently.
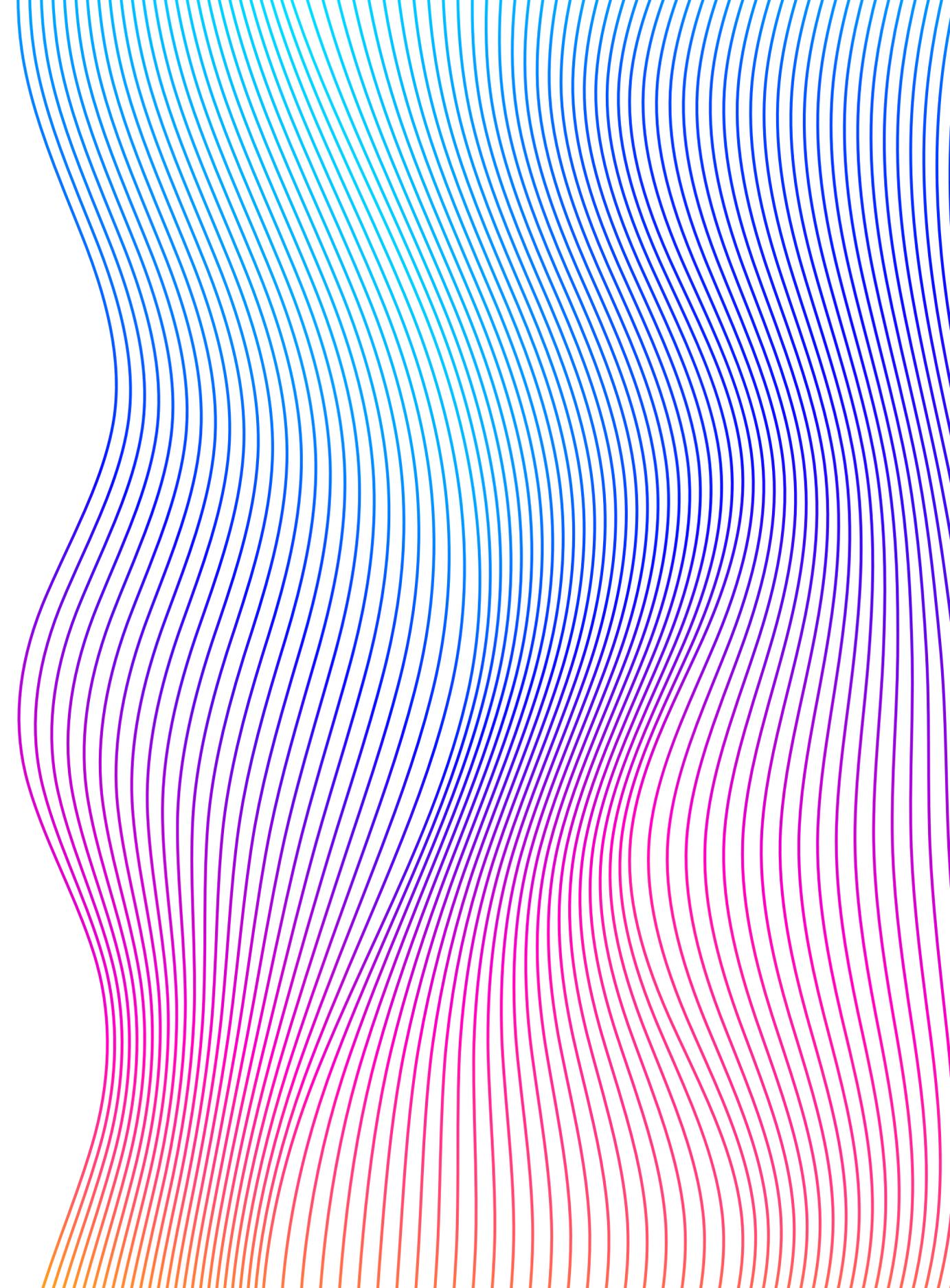
Expectations to deliver on the promise of agentic AI

Which of the following benefits does your organization expect to achieve from agentic AI within the next 24 months? (percent of respondents)

● Incubators (N=527)　　　● Production pioneers (N=123)

	Increase operational efficiency	Enhance decision-making capabilities	Improve competitive differentiation	Reduce and manage risk	Reduce costs
Incubators	53%	46%	48%	37%	35%
Production pioneers	66%	63%	58%	55%	46%
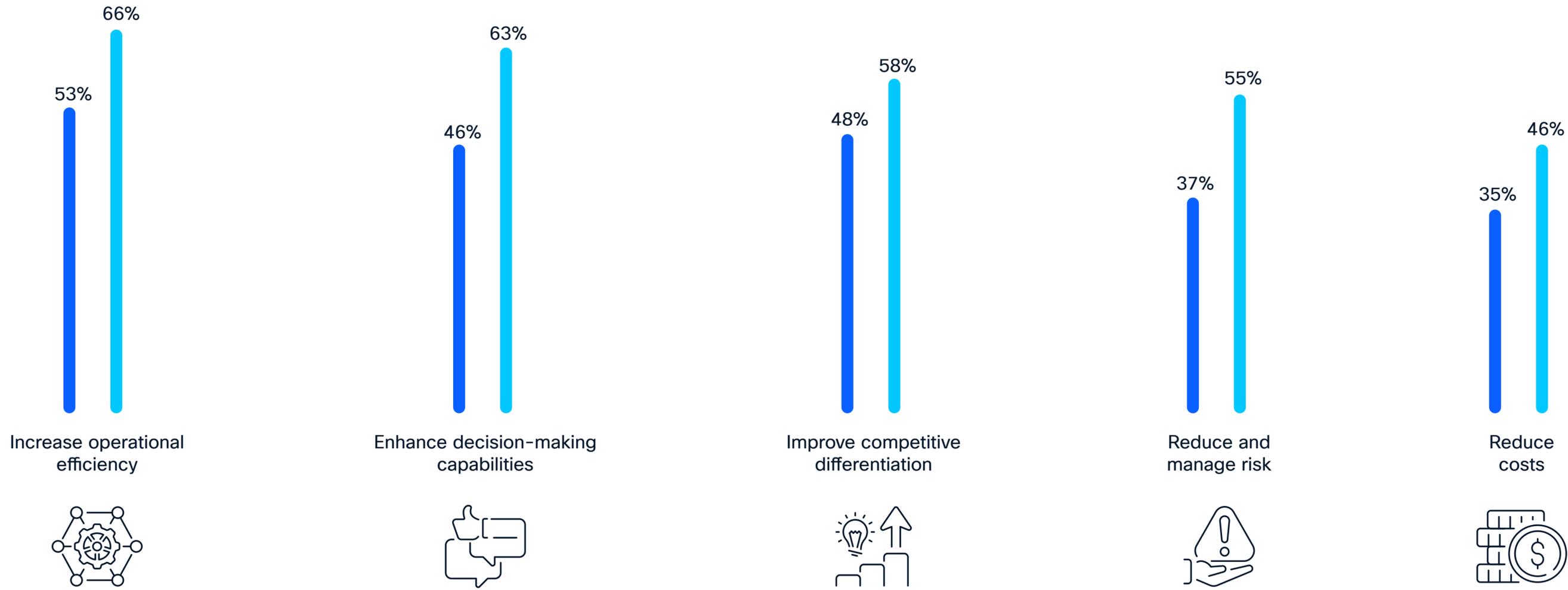
The network is the backbone of the agentic AI era

AI agents are only as powerful as the networks enabling them.
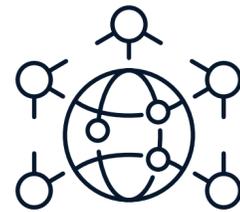
The executives surveyed validate this dependency:

96% said real-time AI responses require robust networks.

95% cited the need to move large datasets and connect distributed IT environments.

94% said it's important the network can support agents across their hybrid and multi-cloud environments.
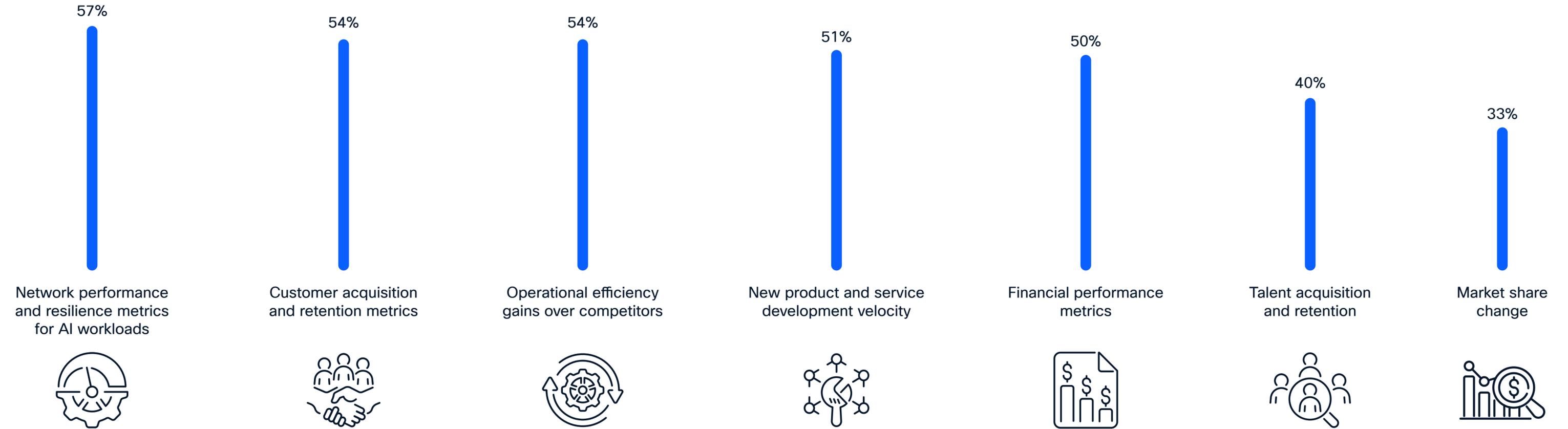
Yet gaps persist: 62% of executives said they struggle to protect networks from AI-driven attacks, manage agent identities, and secure data in motion. As a result, many executives cite network security and governance (68%) and reliability and uptime (61%) as areas of focus as they plan how to scale up the use of AI agents.

We asked which indicators organizations are monitoring, or will monitor, to determine if agentic AI is delivering a competitive advantage. The top response was network performance and resilience metrics (57%) outpacing business-centric outcomes like customer acquisition, financial metrics, and innovation speed. At first glance, that might seem surprising. But with the sweeping changes agents are bringing to workforces and entire industries, and with modernized networks emerging as the essential foundation for agent-driven experiences, it's no wonder executives are laser-focused on network performance as a critical KPI.

The agentic AI era is here, but how do organizations know if it's truly delivering a competitive advantage? They're not just guessing. Companies are actively monitoring specific indicators to measure its impact. The chart below reveals the key metrics executives said they're tracking to measure the impact of agentic AI on business.

The key metrics for measuring the impact of agentic AI

What indicators are you monitoring or planning to monitor to determine whether agentic AI delivers a competitive advantage for your organization? (percent of respondents, N=649, multiple responses accepted)

57%	54%	54%	51%	50%	40%	33%
Network performance and resilience metrics for AI workloads	Customer acquisition and retention metrics	Operational efficiency gains over competitors	New product and service development velocity	Financial performance metrics	Talent acquisition and retention	Market share change

The next 24 months: Majority of workforce to collaborate with AI agents

On average, executives estimate 55% of their workforce will regularly work alongside agents within 24 months.

The challenge: 60% of that group lacks the skills to collaborate with agents effectively today.

When it comes to agentic AI, the timeline for workforce transformation is measured in months, not years.

On average, executives estimate 55% of their workforce will regularly work alongside agents within 24 months.

The challenge: 60% of that group lacks the skills to collaborate with agents effectively today.

The breadth of required skill development compounds the challenge. The agentic AI era demands technical AI understanding, system supervision, prompt engineering, data literacy, and critical thinking. In fact, 72% of organizations prioritize "technical AI understanding" as the top required skill within the next 24 months. This means workers across the business will need to grasp concepts like training data quality, model limitations, potential biases, and hallucination risks, enabling them to work effectively with their digital counterparts.
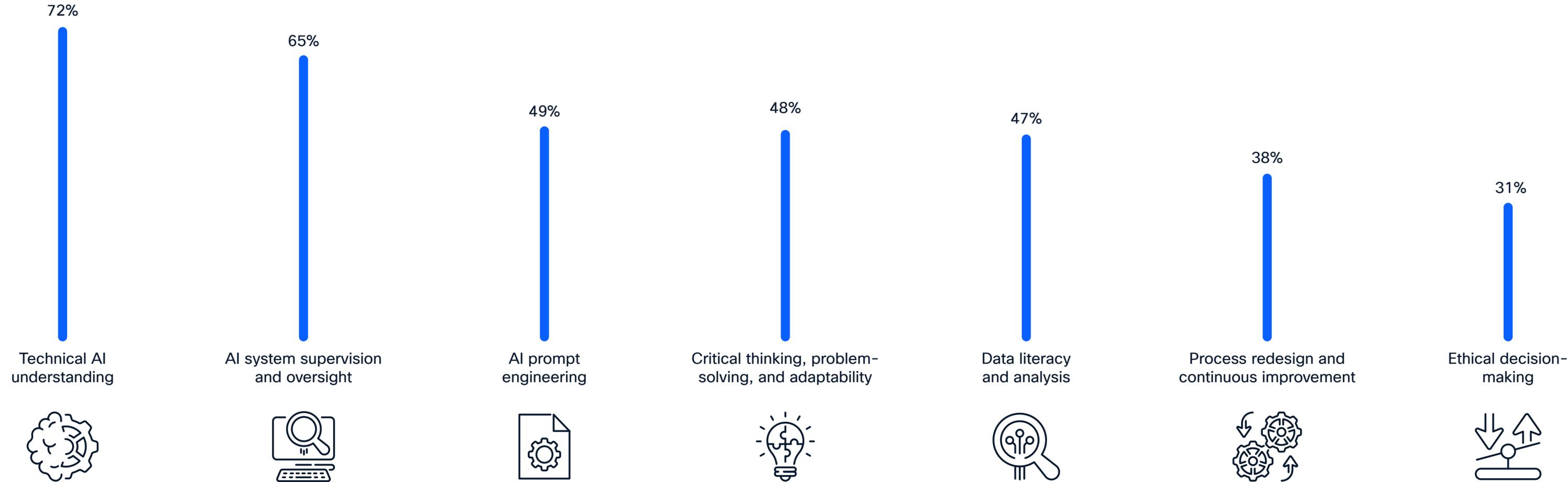
For employees, the imperative is clear: Technical AI literacy is set to become the baseline requirement to thrive in the agentic AI era.

Additionally, 65% of executives surveyed pointed to AI system supervision and oversight as an essential capability. This means monitoring agent behavior, auditing decisions for accuracy and fairness, and knowing when to override autonomous systems operating outside parameters. This emphasis underscores that for non-technical roles, "technical AI understanding" is often synonymous with the ability to critically supervise and collaborate with AI.

Other skills are also cited: 49% of organizations emphasize AI prompt engineering—crafting effective instructions guiding agent behavior—as an important skill. Another 47% prioritize data literacy. But technical skills alone won't suffice: Critical thinking, problem-solving, and adaptability (48%) remain essential for workers.

Where upskilling is needed for the agentic AI era

Which of the following skills is your organization prioritizing for your employees to work more effectively with agentic AI? (percent of respondents, N=600, multiple responses accepted)

72%	65%	49%	48%	47%	38%	31%
Technical AI understanding	AI system supervision and oversight	AI prompt engineering	Critical thinking, problem-solving, and adaptability	Data literacy and analysis	Process redesign and continuous improvement	Ethical decision-making

Organizations that treat skill development with the same urgency as technology deployment will be the most likely to succeed. This means continuous learning programs embedded in daily workflows, microlearning opportunities for incremental skill building, and hands-on practice environments.
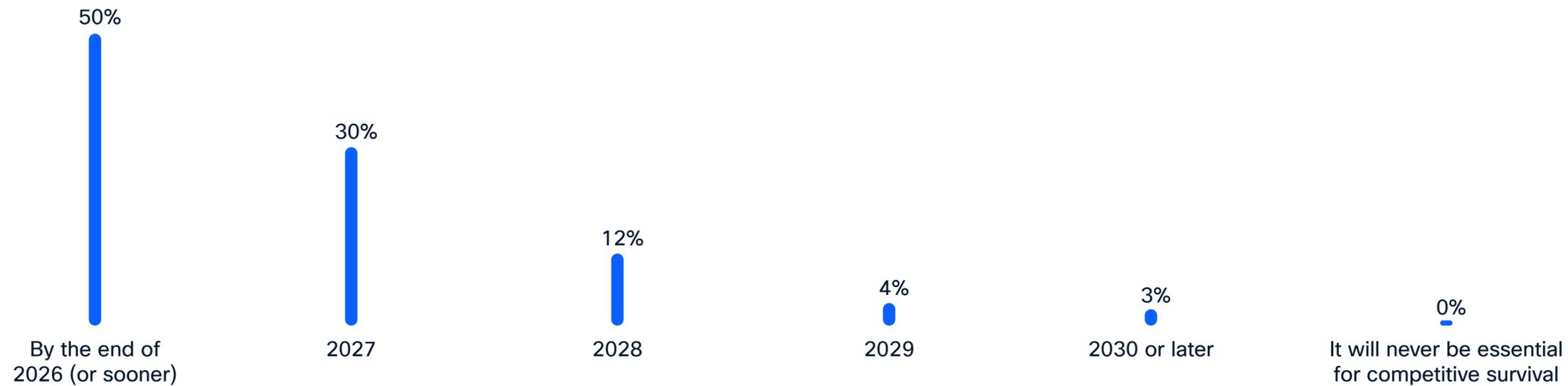
But skills only matter if infrastructure supports their application. An employee supervising agents can't effectively monitor agents without visibility tools, audit trails, and security controls built into the underlying architecture. These aren't separate initiatives—they're interdependent requirements for transformation.

Production pioneers understand this: 53% actively invest in governance training and specialized courses, compared to just 36% of incubators.

The timeline for upskilling is unforgiving: Within 24 months, organizations will either have workforces capable of effective collaboration—and infrastructure capable of supporting it—or they'll struggle while competitors pull ahead.

When agentic AI will be essential to organizational competitiveness

In your opinion, by what year do you expect agentic AI to be essential for competitive survival in your industry? (percent of respondents, N=650)

50%	30%	12%	4%	3%	0%
By the end of 2026 (or sooner)	2027	2028	2029	2030 or later	It will never be essential for competitive survival

Architecting agility: Enterprises centralize AI efforts to own the agentic AI era

Early agentic AI adoption favored decentralization. Individual units experimented independently, leading to a fragmented view of AI's impact. But as organizations scale from AI pilots to enterprise deployment, this approach proves untenable. To benefit from agentic AI, organizations need a more cohesive approach to governance.

Today, 91% of organizations are moving away from decentralized experiments, choosing centralized AI centers of excellence or federated models with strong governance. The emergence of Chief AI Officer roles reflects this evolution. These executives provide cross-functional leadership needed to move beyond experimentation toward transformation.

Strategies used to scale agentic AI

Which approach best describes your organization's strategy for scaling agentic AI? (percent of respondents, N=650)

We have a centralized AI center of excellence	**59%**	We have business unit-led initiatives	**7%**
We have a federated model with central governance	**32%**	We are still determining our approach	**2%**

Among production pioneers, the push for centralization is even stronger: 79% have established centralized AI centers of excellence, compared to just 55% of incubators.

Three imperatives drive centralized governance:

1   **Consistency.** Decentralized deployments create patchwork systems with inconsistent behavior and fragmented user experiences. Centralized governance ensures agents operate according to common standards.

2   **Security.** Autonomous systems accessing sensitive data represent significant risk if not properly governed. Decentralized deployments make consistent security protocols and audit capabilities nearly impossible. Centralized oversight provides necessary control and visibility.

3   **Standardization.** Scaling agentic AI requires common frameworks for development, deployment, and monitoring. Centralized teams establish best practices, maintain reusable components, and ensure organization-wide learning.

Fifty-five percent of executives are conflicted about the risks posed by agents. They don't know if governance concerns should slow down their agentic AI deployment or if the potential gains mean they should move fast anyway. This balancing act gets harder to manage as organizations go from pilots to full production. To scale AI agents, centralized governance is a requirement.

Centralization doesn't mean a lack of flexibility, though. Federated models provide both: Central teams set the standards, while business units work within those boundaries. These frameworks show people how AI decisions get made. That builds trust. For organizations still running decentralized setups, bringing things together isn't optional—it's how organizations scale with confidence.

Strategic spending: More than a third of tech budgets are invested in agentic AI initiatives

Follow the money, and priorities become unmistakable.

On average, organizations allocate nearly 37% of technology budgets specifically to agentic AI initiatives—a massive strategic bet that agentic AI has moved from a promising technology to a mandatory investment. Most transformational technologies command 15-25% of budgets during peak adoption. Agentic AI draws larger allocations while still relatively early in enterprise deployment, signaling how profoundly executives believe it will reshape organizations.

The spending distribution reveals intentionality: 44% of executives said more than 20% of investment flows to foundational network infrastructure, connectivity, and security. This isn't accidental. Organizations understand that, without resilient, secure, AI-ready infrastructure, investments in AI platforms, data integration, and talent development can't deliver returns. The foundation must come first.
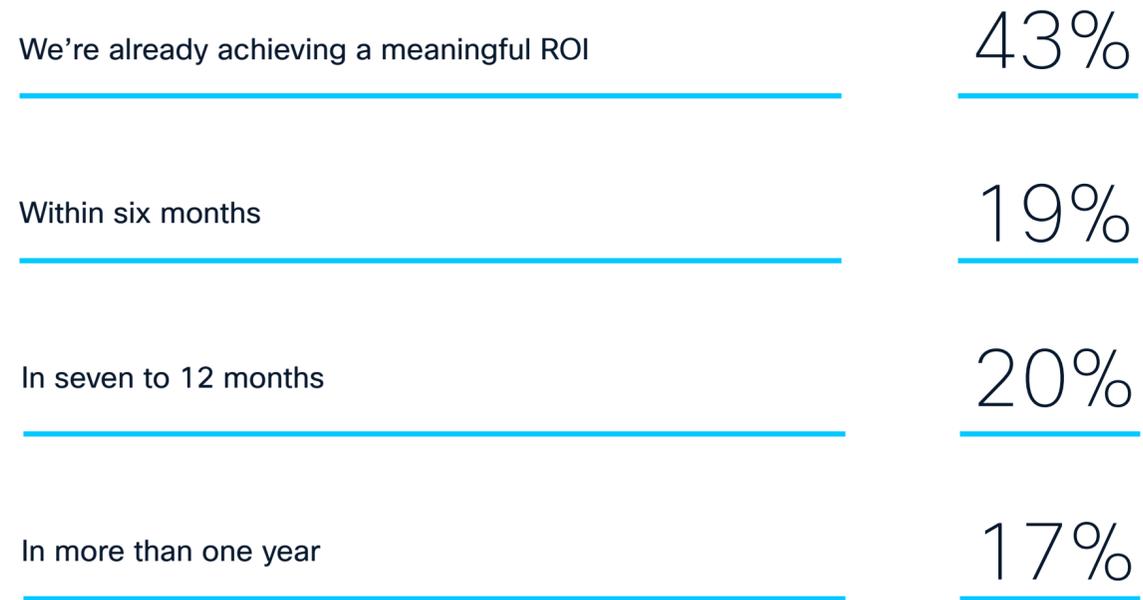
Organizations understand agentic AI isn't just technology—it's a workforce transformation enabler requiring simultaneous investment in infrastructure, data, talent, and culture.

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Investment strategies reflect mature expectations: 52% of production pioneers strongly agreed that agentic AI may not show immediate ROI but will drive long-term success, compared to 42% of incubators. Despite their cautious sentiment, 43% of production pioneers are already seeing a positive ROI, and another 39% expect returns within 12 months.

Timing the return: production pioneers' outlook on agentic AI ROI

In what timeframe do you expect to see meaningful ROI from your agentic AI initiatives?
(percent of respondents, N=123)

We're already achieving a meaningful ROI	43%
Within six months	19%
In seven to 12 months	20%
In more than one year	17%

Organizations making substantial investments are taking action despite not having all the answers. They proceed with conviction because the competitive calculus is clear: In a market where 80% of executives believe embracing agentic AI will be essential to their competitive survival by the end of 2027, the cost of inaction exceeds the complexity of transformation. In a related finding, and one that underscores the magnitude of transformation expected, nearly the same percentage of executives (78%) said the way organizations in their sector operate will be significantly reshaped due to agentic AI over next few years.

Using this research as a benchmark, organizations allocating significantly less than 35% of budgets to agentic AI are likely under-investing relative to the market.
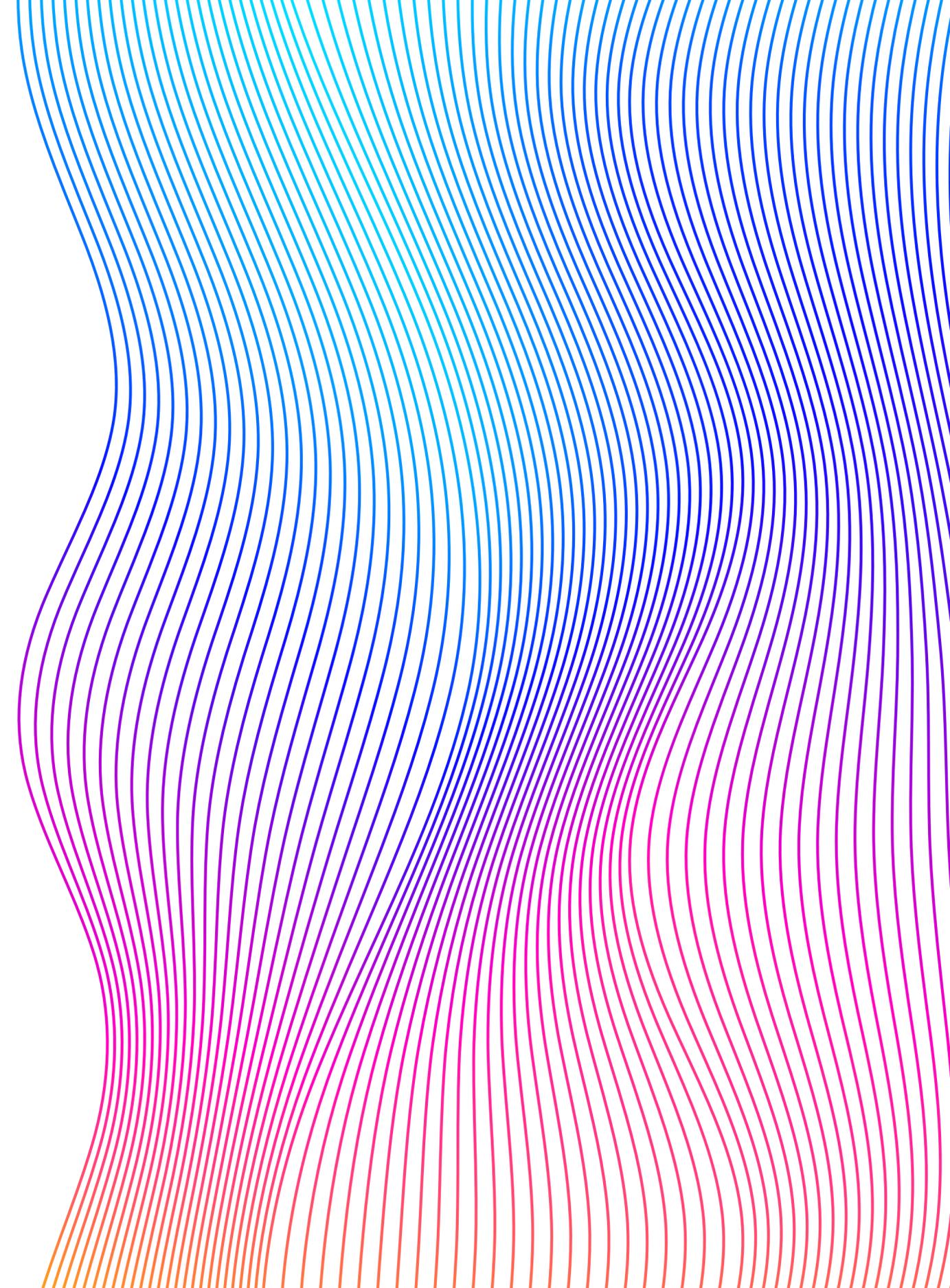
Conclusion: The opportunity is now

Agentic AI is driving the most significant workforce transformation in a generation—and the timeline is compressed. Most workers will be collaborating with AI agents within 24 months, and 80% of executives believe agentic AI will be essential for survival by 2027.

The narrative centers on role reinvention and upskilling: 65% expect entirely new roles, and 64% anticipate significantly redefined responsibilities. Organizations deploying agents today see improved efficiency, better decisions, and measurable impact.

What executives should prioritize now

1 **Invest in infrastructure.** Organizations allocate a significant portion of their agentic AI budgets to network infrastructure because workforce transformation fails without it. The network, its security, and the data traversing it are the foundation agentic AI success depends on.

2 **Lead from the top**. Agentic AI has reshaped priorities for 87% of executive teams, demanding C-suite attention and willingness to fundamentally rethink how work gets done.

3 **Prepare your people.** 60% of workers lack the skills they'll need within months. Training must scale immediately; this is existential, not optional.

4 **Centralize governance.** 91% of organizations are moving toward centralized excellence centers or federated models to ensure consistency, security, and standardization while balancing innovation with control.

The cost of delay

Production pioneers are more bullish about impact, more likely to create new roles, and more aggressive in investment than organizations still planning. The gap between leaders and laggards could widen dramatically.

In a market where 80% believe agentic AI will be essential for survival by 2027, delay isn't just costly—it's potentially fatal.

The question isn't whether this transformation is coming. It's whether your organization will lead it or be left behind.

Methodology
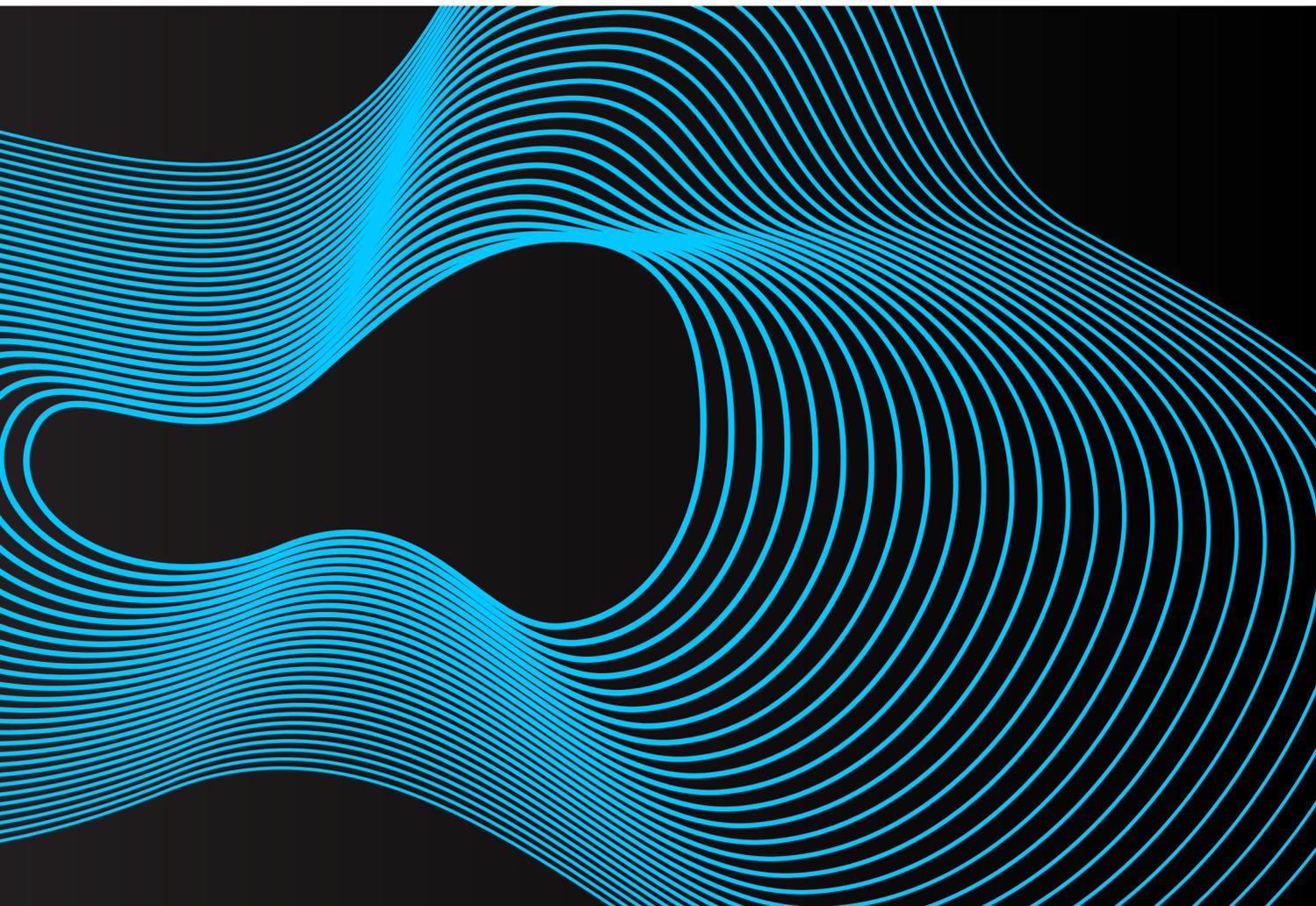
Cisco commissioned Omdia to conduct a comprehensive online survey fielded between September 19-29, 2025. The research included 650 qualified respondents from enterprise organizations with 1,000+ employees across the U.S. (46%), Canada (8%), United Kingdom (23%), Australia and New Zealand (12%), and Singapore (12%).

Respondents were evenly split between executives (CIOs, CTOs, CISOs, IT directors) and line-of-business leaders (marketing, finance, operations executives), all with influence over technology purchases and direct knowledge of their organization's agentic AI plans. All respondents represent organizations actively using, piloting, or planning to pilot agentic AI within 12 months.

The margin of error is +/- 4 percentage points at the 95% confidence level.

About Cisco

Cisco is the critical infrastructure for the AI era. By uniquely combining the power of the network with security, observability, and collaboration, Cisco powers AI-ready data centers, future-proofed workplaces, and digital resilience.

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